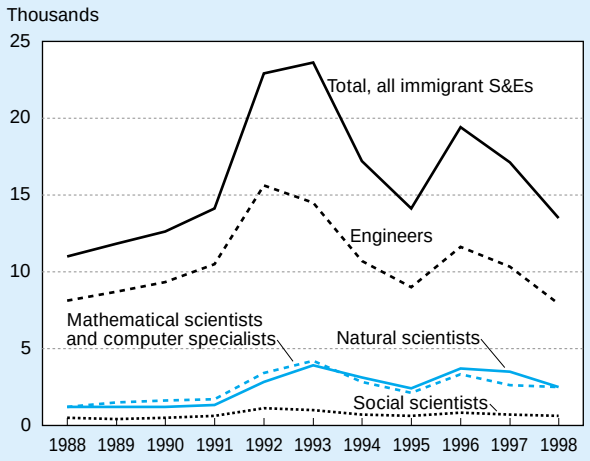
Figure 3-16.
Immigration and Naturalization Service counts of permanent visas with S&E occupations



See appendix table 3-24. *Science & Engineering Indicators – 2000*

These changes resulted in at least a temporary increase in the number of scientists able to obtain permanent visas.[29]

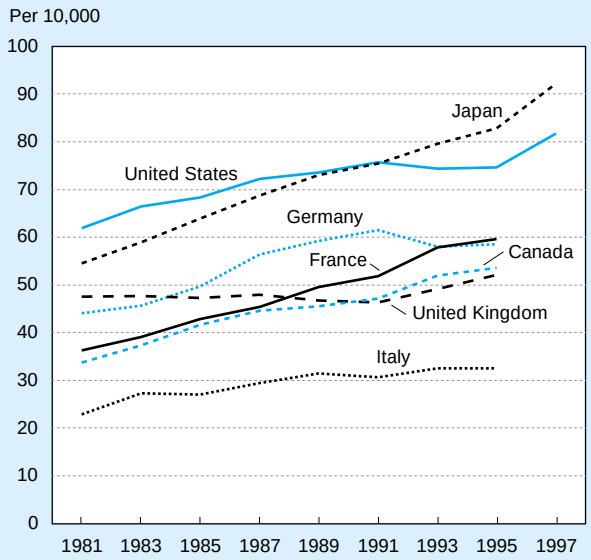
Stay Rates of Temporary Visa Ph.D. Recipients from U.S. Schools

How many of the foreign students who receive S&E Ph.D. holders from U.S. graduate schools stay in the United States? According to a report by Finn (1999), 48 percent of 1992–93 U.S. S&E doctorate recipients with temporary visas were still in the United States in 1994. By field, this percentage ranged from 29 percent in the social sciences to 55 percent in physical sciences and mathematics. (See text table 3-25.) Within each discipline, the percentage of the Ph.D. graduation cohort found in the United States increases with years since degree, reaching 53 percent in 1997. The increase in the stay rate occurs despite considerable evidence from other sources that large numbers of foreign Ph.D. recipients with U.S. degrees leave the United States after completing a postdoc, or at later points in their careers. This suggests a very dynamic picture of the international migration of Ph.D. scientists—with some graduates of U.S. schools returning to the United States even as others leave.

International R&D Employment

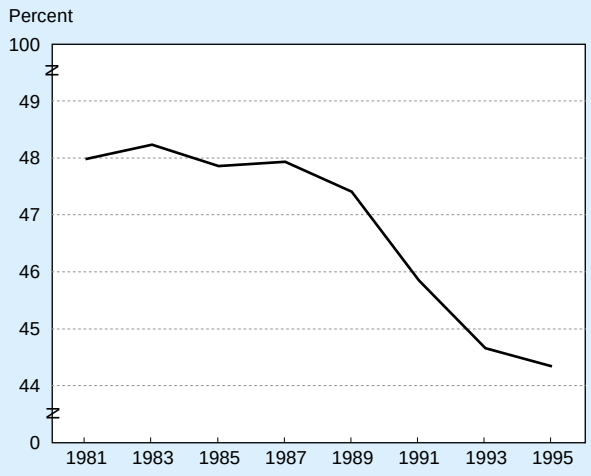
Information on the numbers of scientists and engineers engaged in R&D are contained in figure 3-17, figure 3-18, and appendix table 3-25 for the G-7 nations: the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom. Since 1991, Japan has surpassed the United States in scientists and engineers engaged in R&D as a percentage of their labor force, but the United States continues to have a greater proportion of R&D workers than the other included industrial countries. In terms of total numbers of R&D scientists and engineers, the U.S. share of the G-7 total of scientists and engineers engaged in R&D, as reflected in figure 3-18, has fallen slightly from 48.0 percent in 1981 to 44.3 percent in 1995.

Figure 3-17.
S&E labor force engaged in R&D per 10,000 labor force



See appendix table 3-25. *Science & Engineering Indicators – 2000*

Figure 3-18.
U.S. scientists and engineers engaged in R&D as a percentage of the G-7 total



See appendix table 3-25. *Science & Engineering Indicators – 2000*

[29]In addition, the easier availability of occupation-based permanent visas affect the measurements—many scientists enter on family-based visas, where reporting of occupation is optional. If more of these individuals were using occupational visas, we would identify more immigrants in S&E occupations for that reason.

Text table 3–25.
Recipients of 1992-93 doctorates with temporary visas at time of degree who were in the United States, 1994-97

Field	Temporary resident doctorate recipients	1994	1995	1996	1997
Physical sciences and mathematics	4,821	55	59	60	61
Life sciences	3,765	48	51	53	54
Social sciences	2,278	29	31	32	32
Engineering	5,527	49	53	53	54
Total, S&E fields	16,391	48	51	52	53

SOURCE: Finn ,1999. *Stay Rates of Foreign Doctorate Recipients from U.S. Universities.* Oak Ridge, TN: Oak Ridge Institute for Science and Engineering

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